

Abstract

[0138] An electro-kinetic air conditioner for removing particulates from the air creates an airflow using no moving parts. The conditioner includes an ion generator that has an electrode assembly including a first array of emitter electrodes, a second array of collector electrodes, and a high voltage generator. Preferably, a third or leading or focus electrode is located upstream of the first array of emitter electrodes, and/or a trailing electrode is located downstream of the second array of collector electrodes. The device can also include an interstitial electrode located between collector electrodes, an enhanced collector electrode with an integrally formed trailing end, and an enhanced emitter electrode with an enhanced length in order to increase emissivity.